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Job No.: CTCE/BBMP/W.No.17/GV/CEMENT/2014-15 Date: 11.06.2014

TEST REPORT

CLIENT	:	**Asst. Executive Engineer,** Yeshwanthpura Sub Division, BBMP, Bangalore.
AGENCY	:	**Mr. G. Vasu,** Contractor, Bangalore.
NAME OF THE WORK	:	Construction of RCC drain at 12th Cross of Muthyalanagara in ward No.17, BBMP, Bangalore.
REFERENCE	:	EE/RRND/Wo.No/192/2013-14 Dated: 31.12.2013
SAMPLE ID	:	CEMENT
SAMPLES SUPPLIED BY	:	AGENCY

The results of the tests conducted on the cement sample are as follows:

Sl.No	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 1989-2013
1	Standard Consistency	IS-4031 (Part -4)	28.00 %	-
2	a) Initial Setting Time	IS-4031 (Part -5)	145 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part -5)	485 Minutes	Not More than 600 Minutes
3	Soundness by the Le-Chatelier method	IS-4031 (Part 3)	1 mm	Not more than 10 mm

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Job No.: CTCE/BBMP/W.No.17/GV/SAND/2014-15 : 11.06.2014

TEST REPORT ON FINE AGGREGATES
IS 383-1970 (RA- 2002)

Client : **Asst. Executive Engineer,** Yeshwanthpura Sub Division, BBMP, Bangalore.

Agency : **Mr. G. Vasu,** Contractor, Bangalore.

Name of Work : Construction of RCC drain at 12th Cross of Muthyalanagara in ward No.17, BBMP, Bangalore.

Reference : EE/RRND/Wo.No/192/2013-14 Dated: 31.12.2013

Date of Testing : 11.06.2014

Material : Sand Total Wt. of Aggregates in gms **2000**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits For Zone-II
10	0	0	0	100	100
4.75	65	3.25	3.25	96.8	90-100
2.36	280	14.00	17.25	82.8	75-100
1.18	392	19.60	36.85	63.2	55-90
600 Micron	488	24.40	61.25	38.8	35-59
300 Micron	425	21.25	82.50	17.5	8-30
150 Micron	300	15.00	97.50	2.5	0-10

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Job No.: CTCE/BBMP/W.No.17/GV/AGG/2014-15 : 11.06.2014

TEST REPORT ON COARSE AGGREGATES
IS 383-1970 (RA- 2002)

Client : **Asst. Executive Engineer,** Yeshwanthpura Sub Division, BBMP, Bangalore.

Agency : **Mr. G. Vasu,** Contractor, Bangalore.

Name of Work : Construction of RCC drain at 12th Cross of Muthyalanagara in ward No.17, BBMP, Bangalore.

Reference : EE/RRND/Wo.No/192/2013-14 Dated: 31.12.2013

Date of Testing : 11.06.2014

Material : 40mm Aggregates

Total Wt. of Aggregates in gms **25000**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits
80	0	0	0	100	100
40	900	3.60	3.60	96.40	95-100
20	16025	64.10	67.70	32.30	30-70
10	4125	16.50	84.20	15.80	10-35
4.75	3280	13.12	97.32	2.68	0-5

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Job No.: CTCE/BBMP/W.No.17/GV/AGG/2014-15 : 11.06.2014

TEST REPORT ON COARSE AGGREGATES
IS 383-1970 (RA- 2002)

Client : **Asst. Executive Engineer,** Yeshwanthpura Sub Division, BBMP, Bangalore.

Agency : **Mr. G. Vasu,** Contractor, Bangalore.

Name of Work : Construction of RCC drain at 12th Cross of Muthyalanagara in ward No.17, BBMP, Bangalore.

Reference : EE/RRND/Wo.No/192/2013-14 Dated: 31.12.2013

Date of Testing : 11.06.2014

Material : 20mm Aggregates

Total Wt. of Aggregates in gms= **5000**

Tabel - 1

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits
40	0	0	0	100	100
20	125	2.50	2.5	97.50	95-100
10	3295	65.90	68.4	31.60	25-55
4.75	1300	26.00	94.4	5.60	0-10

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Job No.: CTCE/BBMP/W.No.17/GV/STEEL/2014-15 16.06.2014

TEST REPORT ON REINFORCEMENT STEEL

Client	:	**Asst. Executive Engineer,** Yeshwanthpura Sub Division, BBMP, Bangalore.
Agency	:	**Mr. G. Vasu,** Contractor, Bangalore.
Name of the Work	:	Construction of RCC drain at 12th Cross of Muthyalanagara in ward No.17, BBMP, Bangalore.
Reference	:	EE/RRND/Wo.No/192/2013-14 Dated: 31.12.2013
Date of Test	:	16.06.2014
Technical Reference	:	IS: 1786-2008

Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm^2	Tensile strength (Ultimate stress) N/mm^2	Elongation percent gauge length		
1	10	0.62	513	556	13.25	O.K	O.K

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Job No.: CTCE/BBMP/W.No.17/GV/STEEL/2014-15 16.06.2014

TEST REPORT ON REINFORCEMENT STEEL

Client	:	**Asst. Executive Engineer,** Yeshwanthpura Sub Division, BBMP, Bangalore.
Agency	:	**Mr. G. Vasu,** Contractor, Bangalore.
Name of the Work	:	Construction of RCC drain at 12th Cross of Muthyalanagara in ward No.17, BBMP, Bangalore.
Reference	:	EE/RRND/Wo.No/192/2013-14 Dated: 31.12.2013
Date of Test	:	16.06.2014
Technical Reference	:	IS: 1786-2008

Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm^2	Tensile strength (Ultimate stress) N/mm^2	Elongation percent gauge length		
1	12	0.89	515	558	13.35	O.K	O.K

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No: CTCE/BBMP/W.No.17/GV/CUBE/2014-15 18.07.2014

TEST REPORT ON CONCRETE CUBES

Client	: **Asst. Executive Engineer,** Yeshwanthpura Sub Division, BBMP, Bangalore.
Agency	: **Mr. G. Vasu,** Contractor, Bangalore.
Name of the work	: Construction of RCC drain at 12th Cross of Muthyalanagara in ward No.17, BBMP, Bangalore.
Reference	: EE/RRND/Wo.No/192/2013-14 Dated: 31.12.2013
Sample ID	: RCC Drain Concrete
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete	: M_{20}
Compressive Strength as on	: 28th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	20.06.2014	18.07.2014	8.126	475.5	21.13
2	20.06.2014	18.07.2014	8.263	490.3	21.79
3	20.06.2014	18.07.2014	8.332	510.3	22.68

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Job No.: CTCE/BBMP/W.No.17/GV/CUBE/2014-15

21.07.2014

TEST REPORT ON CONCRETE CUBES

Client	: **Asst. Executive Engineer,** Yeshwanthpura Sub Division, BBMP, Bangalore.
Agency	: **Mr. G. Vasu,** Contractor, Bangalore.
Name of the work	: Construction of RCC drain at 12th Cross of Muthyalanagara in ward No.17, BBMP, Bangalore.
Reference	: EE/RRND/Wo.No/192/2013-14 Dated: 31.12.2013
Sample ID	: RCC Drain Concrete
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete	: M_{20}
Compressive Strength as on	: 28th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	23.06.2014	21.07.2014	8.129	482.3	21.44
2	23.06.2014	21.07.2014	8.290	499.6	22.20
3	23.06.2014	21.07.2014	8.390	526.3	23.39

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Job No.: CTCE/BBMP/W.No.17/GV/CUBE/2014-15

24.07.2014

TEST REPORT ON CONCRETE CUBES

Client	: **Asst. Executive Engineer,** Yeshwanthpura Sub Division, BBMP, Bangalore.
Agency	: **Mr. G. Vasu,** Contractor, Bangalore.
Name of the work	: Construction of RCC drain at 12th Cross of Muthyalanagara in ward No.17, BBMP, Bangalore.
Reference	: EE/RRND/Wo.No/192/2013-14 Dated: 31.12.2013
Sample ID	: RCC Drain Concrete
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete	: M_{20}
Compressive Strength as on	: 28th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	26.06.2014	24.07.2014	8.139	477.9	21.24
2	26.06.2014	24.07.2014	8.290	502.6	22.34
3	26.06.2014	24.07.2014	8.337	515.6	22.92

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Job No.: CTCE/BBMP/W.No.17/GV/CUBE/2014-15

26.07.2014

TEST REPORT ON CONCRETE CUBES

Client	: **Asst. Executive Engineer,** Yeshwanthpura Sub Division, BBMP, Bangalore.
Agency	: **Mr. G. Vasu,** Contractor, Bangalore.
Name of the work	: Construction of RCC drain at 12th Cross of Muthyalanagara in ward No.17, BBMP, Bangalore.
Reference	: EE/RRND/Wo.No/192/2013-14 Dated: 31.12.2013
Sample ID	: RCC Drain Concrete
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete	: M_{20}
Compressive Strength as on	: 28th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	28.06.2014	26.07.2014	8.097	483.5	21.49
2	28.06.2014	26.07.2014	8.180	495.5	22.02
3	28.06.2014	26.07.2014	8.297	510.2	22.68

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Job No.: CTCE/BBMP/W.No.17/GV/CUBE/2014-15

28.07.2014

TEST REPORT ON CONCRETE CUBES

Client	: **Asst. Executive Engineer,** Yeshwanthpura Sub Division, BBMP, Bangalore.
Agency	: **Mr. G. Vasu,** Contractor, Bangalore.
Name of the work	: Construction of RCC drain at 12th Cross of Muthyalanagara in ward No.17, BBMP, Bangalore.
Reference	: EE/RRND/Wo.No/192/2013-14 Dated: 31.12.2013
Sample ID	: RCC Drain Concrete
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete	: M_{20}
Compressive Strength as on	: 28th day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	30.06.2014	28.07.2014	8.299	475.9	21.15
2	30.06.2014	28.07.2014	8.339	502.3	22.32
3	30.06.2014	28.07.2014	8.482	519.6	23.09

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Regarding Quality Control Certificate

NAME OF WORK : Construction of RCC drain at 12th cross of Muthyala nagara in ward no 17

JOB NO : 017-14-000034

WORK ORDER NO : EE/RRN/Wo.No/192/2013-14, dated: 31-12-13.

On verification of Quality control test reports available in the file and also from inspection report of the Technical Team deployed for this purpose generally the work executed is satisfactory compliance of Quality Control test reports as per MORT & H this stage is not feasible since the work was executed 2 (two) years back.

Executive Engineer
Rajarajeshwari Nagara Division
BBMP, Bangalore